(12) UK Patent Application (19) GB (11) 2 133 166 A

(21) Application No 8232160
(22) Date of filing 11 Nov 1982
(43) Application published 18 Jul 1984
(51) INT CL³ G01G 19/413
(52) Domestic classification G1W L
(56) Documents cited GBA 2046926 GB 1577289
(58) Field of search G1W
(71) Applicants Jack Palmer, Beckwood Cottage, Manaton, Newton Abbot, Devon, Russell Palmer, Tuly Cottage, Lowertown, Poundsgate, Newton Abbot, Devon
(72) Inventor Russell Palmer
(74) Agent and/or Address for Service M. J. Stephens & Co., Royal Building, 11 St. Andrews Cross, Plymouth PL1 2DS

(54) Diet control aid

(57) A diet control aid comprises scales for determining the weight of a foodstuff, and a microprocessor which is programmed with respective unit calorific values for a number of foodstuffs. Upon the input of an identification code for the foodstuff being weighed, the microprocessor derives from the appropriate unit calorific value the calorific value corresponding to the weight of the foodstuff. This derived value is displayed digitally.

GB 2 133 166 A

The claims were filed later than the filing date within the period prescribed by Rule 25(1) of the Patents Rules 1982.

SPECIFICATION
Diet control aid

The present invention relates to a diet control aid and aims to provide a device for determining the calorific values of foodstuffs without a user having to carry out laborious calculations using tables, charts or lists which give calorific values for unit weights or quantities of a range of foodstuffs.

According to the present invention, there is provided a diet control aid including weighing means, input means for identifying a foodstuff being weighed by the weighing means, electronic calculating means for deriving from a stored calorific value for a unit weight of the foodstuff identified by the input means the calorific value corresponding to the weight of the foodstuff determined by the weighing means, and means for providing a digital display of the derived calorific value.

Although the weighing means need not necessarily display the actual weight of the foodstuff being weighed, in a preferred embodiment the weighing means comprise the weighing device of an electronic balance or mechanical scales, so that the weight of the foodstuff is displayed, and the input means, calculating means, and display means of the diet control aid are incorporated in the balance or scales to form one unit. Since electronic balances usually provide a digital weight display, in some cases it may be preferable to use mechanical scales giving an analogue weight display which will not be confused with the digital calorific value display.

In a convenient manner, the input means preferably include a number of push-button switches or keys which can be operated individually or in selected sequences or combinations to provide identifying codes for a number of selected foodstuffs. In preferred embodiments, the keys are numbers, for example, zero to nine, or lettered, so that a large number of possible codes will be available from operating the keys in different sequences and/or combinations. In a simple alternative embodiment, however, each key may have a label or graphic symbol representing a particular foodstuff, so that the number of identifiable foodstuffs will correspond to the number of keys.

Preferably, the calculating means comprise a microprocessor which is programmed or programmable, by any conventional means, with respective calorific values for unit weights of the foodstuffs identifiable by the input means.

The microprocessor may have supplementary functions leading to the display of, for example, a user's cumulative total calorie intake, a user's total calorie intake for a specific time period (for example, one day) and the calories remaining from a user's permitted intake for a specific time period, with a visual or audible alarm being given when the permitted total is being approached and/or exceeded. In other cases, the microprocessor may accept a number of user identification and/or diet codes and have the memory capacity which allows the aid to be used by a number of people on different diets.

Conventionally, the display means may comprises, for example, a liquid crystal device (LCD) or light-emitting diodes (LED).

In one embodiment for household use, the weighing means are constituted by the weighing mechanism of conventional free-standing or wall-mountable kitchen scales, and the electronic circuitry of the input means, the microprocessor and the LED display comprise a battery-powered unit housed within the casing of the scales. The input keys and LED display are mounted adjacent respective sides of the front face of the casing beneath the analogue display of the scales.

In use, an item of food is placed in the pan of the scales in the usual manner, and the appropriate identification code is keyed on the input keys. The microprocessor then derives, from a given calorific value (for example, calories per kilogram) for that food held in its memory, the calorific value corresponding to the actual weight of the food determined by the weighing mechanism of the scales. This value is shown on the LED display.

A diet control aid according to the present invention is particularly valuable for assisting in the control of strict medically-supervised diets, as well as cosmetic diets and general household use.

CLAIMS

1. A diet control aid including weighing means, input means for providing an input signal or code for identifying a foodstuff being weighed by the weighing means, electronic calculating means for deriving from a stored calorific value for a unit weight of the foodstuff identified by the input means the calorific value corresponding to the weight of the foodstuff determined by the weighing means, and means for providing a digital display of the derived calorific value.

2. A diet control aid as claimed in Claim 1, in which the weighing means comprise scales which display the weight of the foodstuff.

3. A diet control aid as claimed in Claim 2, in which the scales are electronic with a digital weight display.

4. A diet control aid as claimed in Claim 2, in which the scales are mechanical with an analog weight display.

5. A diet control aid as claimed in Claim 1 or Claim 2, in which the input means include a number of push-button switches or keys which can be operated individually or in selected sequences or combinations to provide identifying codes for a number of foodstuffs.

6. A diet control aid as claimed in any one of

the preceding claims, in which the calculating means comprise a microprocessor which is programmed or programmable with respective unit calorific values for a number of foodstuffs.

7. A diet control aid substantially as herein described.

Printed for Her Majesty's Stationery Office by the Courier Press, Leamington Spa, 1984. Published by the Patent Office, 25 Southampton Buildings, London, WC2A 1AY, from which copies may be obtained.